

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 32172-190253	<b>FOR FURTHER ACTION</b>	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US03/20058	International filing date ( <i>day/month/year</i> ) 27 June 2003 (27.06.2003)	(Earliest) Priority Date ( <i>day/month/year</i> ) 27 June 2002 (27.06.2002)
Applicant TELLABS OPERATIONS, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the Report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (See Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures

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International application No.

PCT/US03/20058

## Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

Packets having at least one cell switched using input queues (101), output queues (106), a switch fabric (103), and a controller (108). Each input queue (101) stores cells to be switched, and each output queue (106) stores switched cells. The switch fabric (103) couples the input queues (101) to the output queues (106) and has memory. The switch fabric (103) stores cells moved from the input queues (101) to the switch fabric and stores cells based on the output queues. The controller (108) couples to the input queues and the switch fabric (103) and determines input priorities for cells moving from the input queues (101) to the switch fabric (103) and output priorities for cells moving from the switch fabric (103) to the output queues (106).

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC: H04L 12/18( 2006.01),12/56( 2006.01)

USPC: 370/412,413,414,415,416

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 370/412,413,414,415,416

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
IEEE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	"Delay-Bound Guarantee in Combined Input-Output Buffered Switches" (CHAO), IEEE	1-3, 8, 9, 12, and 17-19
---	GLOBECOM 2000, 01 December 2000 (01.12.2000), Vol 1, pg 515-524, Figure 3, Figure 1,	
Y	Section V	4-7, 10, 11, and 13-16
Y	"Matching Output Queueing with a Combined Input/Output-Queued Switch" (CHUANG), IEEE Journal on Selected Areas in Communications, 30 June 1999 (30.06.1999), CCF Insertion Policy section, pg 1034	4, 5, 7, and 10
Y	"CIXB-1: Combined Input-One-Cell-Crosspoint Buffered Switch" (ROJAS-CESSA), 2001 IEEE Workshop on High Performance Switching and Routing, 31 May 2001 (31.05.2001), Figure 1, pg 325	6, 11, 13, 14, and 16
Y	"Service Disciplines for Guaranteed Performance Service in Packet-Switching Networks" (ZHANG), Proceedings of the IEEE, 31 October 1995 (31.10.1995), Section B, pg 1378	15 and 16

☐ Further documents are listed in the continuation of Box C.



See patent family annex.

### \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

13 December 2007 (13.12.2007)

Date of mailing of the international search report

03 JAN 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Brian T. O'Connor

Telephone No. 571-270-1081